

## **Appendix G**

### **Well Development Purge Sheets**

**Northwest Boundary Area RCRA Facility Investigation  
Fort Buchanan, Puerto Rico**



## Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-2 SAMPLE NO. —  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 8, 06 TIME 1330 AIR TEMP. 80°F

WELL DEPTH	<u>40</u>	ft	CASING HEIGHT	<u>flush</u>	ft
WATER DEPTH	<u>19.00</u>	ft	WELL DIAMETER	<u>2</u>	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	<u>2 gpm = 1.0 Lpm</u>				(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	<u>40</u>	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	<u>50</u>	(gal) (L)

[illegible]

COMMENTS Good produce, No odor

SIGNATURE William R. Kelly

*Development*  
**WELL PURGING AND SAMPLING RECORD**

WELL ID MW-PR-3A SAMPLE NO. —  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 11/14/06 TIME 1300 AIR TEMP. 80°F+

WELL DEPTH 34 ft CASING HEIGHT flush ft  
WATER DEPTH 25.9# ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 2.6 gpm → 2.4 gpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 55 min  
VOL. REMOVED 72 gal + (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED 82 (gal) (L)

Date	Time	Volume Removed Unit: <u>gal</u>	pH	Cond. <u>mg/cm</u>	Temp. <u>°C</u>	ORP	Turb. <u>NTU</u>	DO <u>mg/L</u>	Depth to Water from TOC	Pump Rate <u>2.4/min</u>
11/14/06	1528	72 gal +	6.62	0.849	27.50	157.7	140.0	3.40		
11/14/06	1532	<del>75</del> 1	6.61	0.860	27.83	159.4	104.0	2.57		
	1536	2	6.63	0.863	27.99	154.7	89.2	2.67		
	1540	3	6.63	0.866	28.14	159.4	82.0	2.59		
	1544	4	6.64	0.881	28.76	164.3	72.2	2.65		
	1548	5	6.65	0.887	29.00	158.8	69.7	2.46		
	1552	6	6.65	0.888	29.07	155.2	59.3	2.42		
✓	1556	7	6.65	0.888	29.14	152.0	54.5	2.44		
	1600	8	6.65	0.889	29.18	157.2	51.4	2.48		
	1604	9	6.64	0.889	29.21	158.9	49.4	2.52		
	1608	10	6.65	0.889	29.25	158.7	48.8	2.52	25.9	

COMMENTS Bottom of well very firm. Well is a good producer.

SIGNATURE by M. [Signature]





# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL DEPTH <u>41</u>	ft	CASING HEIGHT <u>flush</u>	ft
WATER DEPTH <u>30.88</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL. HEIGHT _____	ft	SANDPACK DIAM. _____	in
EQUIVALENT VOLUME OF STANDING WATER _____	(gal) (L)		
PUMP RATE _____	gpm (lpm)	<u>2 gpm - 14 pm</u>	
PUMP TIME _____	min		
WELL WENT DRY? ( ) Yes (X) No		PUMP TIME <u>35</u>	min
VOL. REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? ( ) Yes (X) No		TOTAL VOL. REMOVED <u>540</u> (gal) (L)	

[illegible]

COMMENTS Sl Petroleum odor. Cleared rapidly.

SIGNATURE William R. Galt

Development



15 Loveton Circle  
Sparks, Maryland 21152

PURGING LOGBOOK FORM  
GROUNDWATER SAMPLES

WELL ID MW-4B SAMPLE NO.         
WELL/SITE DESCRIPTION       

DATE 12/6/06 TIME 0700 AIR TEMP. 90°F

WELL DEPTH 66 ft CASING HEIGHT flush ft  
WATER DEPTH 19.01 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT        ft SANDPACK DIAM.        in  
EQUIVALENT VOLUME OF STANDING WATER        (gal) (L)  
PUMP RATE 26pm - 14pm (gpm) (lpm)  
PUMP TIME        min  
WELL WENT DRY? ☐ Yes ☒ No PUMP TIME 50 min  
VOL. REMOVED        (gal) (L) RECOVERY TIME        min  
PURGE AGAIN? ☐ Yes ☒ No TOTAL VOL. REMOVED ≈ 56 (gal) (L)

Date	Time	Volume Removed	pH	Cond	Temp	ORP	Turb	DO	Depth to Water from TOC	Pump Rate
12/6/06		— Purged ≈ 50 gal prior to reading							451	26pm
	0720	4 L	7.21	1.321	27.46	13	550	4.86	19.48	14pm
	0724	8	6.99	1.202	27.61	-38	221	3.01	19.38	
	0728	12	6.98	1.010	27.68	-109	180	1.59	19.30	
	0732	16	6.98	0.902	27.81	-179	59	1.01	19.06	
	0736	20	6.97	0.871	27.55	-195	28	0.50	19.05	
✓	0740	24	6.97	0.841	27.80	-201	20	0.36	19.03	
	0744	28	6.97	0.840	27.80	-205	19	0.34	19.03	

COMMENTS Flow ft of silt at bottom, cleared quickly

SIGNATURE Will M. Hsu



## WELL PURGING AND SAMPLING RECORD

SAMPLE NO.

WELL/SITE DESCRIPTION

AIR TEMP. 85° F

PURGE AGAIN" ( ) Yes (X) No TOTAL VOL. REMOVED 42 (gal) (L)

COMMENTS Pulled 30+ gal before taking readings. (V. pale brown fine sand). Cleared nicely, all good/stable.

SIGNATURE

William R. Hargis





## WELL PURGING AND SAMPLING RECORD

WELL ID MMW-PR-0513 SAMPLE NO. 1  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 11 / 27 / 06 TIME 1525 AIR TEMP. 85°F

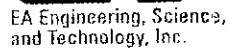
WELL DEPTH 66 ft CASING HEIGHT flush mt ft  
WATER DEPTH 23.4 ft WELL DIAMETER \_\_\_\_\_ in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. \_\_\_\_\_ in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 2 gpm → 2 Lpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 65 min  
VOL. REMOVED \_\_\_\_\_ (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED 248 (gal) (L)

Date	Time	Volume Removed	pH	Cond. µS/cm	Temp. °C	ORP	Turb.	DO	Depth to Water from TOC	Pump Rate
		Unit: <del>L</del> +								L/min
11/21/06	1556	—	7.12	0.914	29.0	-19	499	14.08	24.4	2
	1600	<del>4</del> 2	7.02	0.917	28.92	-23.2	402	11.47		2
	1604	4	7.00	0.916	28.88	-24.6	319	11.60		
	1608	6	6.98	0.916	28.90	-24.5	601	9.89		
	1612	8	6.98	0.911	28.70	-23.4	280	10.17		
	1616	10	6.98	0.909	28.69	-22.4	225	10.15		
	1620	12	6.97	0.907	28.68	-21.7	205	12.24		
	1624	14	6.97	0.905	28.68	-19.9	197	11.72		
	<del>1628</del>	- Pumped hard to remove fines -								4
	1628	18	6.97	0.900	28.66	-18.2	126	11.09		2
	1632	20	6.96	0.901	28.68	-15.6	130	11.17		
	1636	22	6.94	0.901	28.68	-14.2	160	11.19		
	1640	24	6.96	0.901	28.65	-10.0	151	9.06		

COMMENTS Very good well, produces well. ~~Cleared fairly quickly~~, little silt on bottom. Quit on 11/27 after pulling  $\approx 3$  well volumes. GW cleared to  $\approx 100$  ppb. NTU. May need further development, at time of sampling.

SIGNATURE William R. Harvey

SIGNATURE



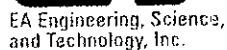
## WELL PURGING AND SAMPLING RECORD

DATE 11 / 17 / 06 TIME 1315 AIR TEMP. 80°F

[illegible]

COMMENTS Good producer - once silt was removed turbidity cleared up right away. Firm bottom.

SIGNATURE by M. J. [illegible]



## WELL PURGING AND SAMPLING RECORD

WELL ID MW-PR-06B SAMPLE NO. —  
WELL/SITE DESCRIPTION \_\_\_\_\_

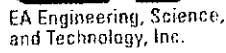
DATE 11 / 17 / 06 TIME 1000 AIR TEMP. 80° F +

WELL DEPTH 50 ft CASING HEIGHT flush mt ft  
WATER DEPTH 8.4 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 20 gpm → 2.6 Lpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 100 min  
VOL. REMOVED 55 gal (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED 55 (gal) (L)

COMMENTS Good producer Pulled several feet of silt from bottom; then cleared quickly. Bottom very firm.

SIGNATURE

by M. M.



## WELL PURGING AND SAMPLING RECORD

WELL ID MW-PR-7A SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

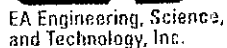
DATE 11 / 16 / 06 TIME 1315 AIR TEMP. 80° F +  
11 / 17 / 06 715 80° F +

WELL DEPTH 36 ft CASING HEIGHT flush ft  
WATER DEPTH 4.4 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 1 gpm → 1 Lpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? 11/16 ( ) Yes 11/17 ( ) No  
VOL. REMOVED 30 gal + 12 gal (gal) (L)  
PURGE AGAIN? ( ) Yes ( ) No  
PUMP TIME 60 min  
RECOVERY TIME \_\_\_\_\_ min  
TOTAL VOL. REMOVED 42 (gal) (L)

[illegible]

COMMENTS Not a good producer - let well recharge overnight.  
Recharges fairly quickly at low rates. Bottom of well - firm.

SIGNATURE ky M R



## WELL PURGING AND SAMPLING RECORD

WELL ID MW-PR-7B SAMPLE NO. 1  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 11 / 15 / 06 TIME 900 AIR TEMP. 80°F +

WELL DEPTH 73.5 ft CASING HEIGHT flush ft  
WATER DEPTH 9.10 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. \_\_\_\_\_ in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 26 gpm → 1 Lpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 60 min  
VOL. REMOVED 80 gal + (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)

[illegible]

COMMENTS Initially well had 20 ft silt - removed. Well had plenty of water - cleared up.

SIGNATURE My M. De



6 15 Loveton Circle  
Sparks, Maryland 21152

DEVELOPMENT PURGING LOGBOOK FORM  
GROUNDWATER SAMPLES

WELL ID NW-8A SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 9, 06 TIME 1400 AIR TEMP. 85°F

WELL DEPTH _____	ft	CASING HEIGHT <u>Flush</u>	ft
WATER DEPTH <u>13.20</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL. HEIGHT _____	ft	SANDPACK DIAM. <u>8</u>	in
EQUIVALENT VOLUME OF STANDING WATER _____	(gal) (L)		
PUMP RATE <u>1.0</u>	(gpm) (lpm)		
PUMP TIME _____	min		
WELL WENT DRY? <input checked="" type="checkbox"/> Yes ( ) No		PUMP TIME <u>52</u>	min
VOL REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? <input checked="" type="checkbox"/> Yes ( ) No		TOTAL VOL. REMOVED <u>15</u>	(gal) (L)

[illegible]

### COMMENTS

Very slow producer. No YST readings

**SIGNATURE**

Will Hay



Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-8B  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 7, 06

TIME 1500

AIR TEMP. 80°F

WELL DEPTH	5.2	ft	CASING HEIGHT	Flush	ft
WATER DEPTH	15.70	ft	WELL DIAMETER	2	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	1 - 2				(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	50	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	69	(gal) (L)

COMMENTS Great producer. DO likely malfunctioning.

**SIGNATURE**

William E. Shaw



EA Engineering, Science,  
and Technology, Inc.

# Development

## WELL PURGING AND SAMPLING RECORD

WELL ID MW 9A SAMPLE NO. —

QA/QC SAMPLES COLLECTED/DESIGNATION: \_\_\_\_\_

WELL/SITE DESCRIPTION: \_\_\_\_\_

DATE 5/14/07 TIME 1100 AIR TEMP. 90°F

WELL DEPTH (145 ft to seal from top) 43 ft CASING HEIGHT \_\_\_\_\_ ft  
 WATER DEPTH 24.36 ft WELL DIAMETER 2 in  
 WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
 PUMP INTAKE DEPTH \_\_\_\_\_ ft  
 EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
 PUMP RATE 2 GPM down to 1 LPM (gpm) (LPM)  
 PUMP TIME \_\_\_\_\_ min  
 WELL WENT DRY? ( ) Yes (X) No PUMP TIME 40 min  
 VOL. REMOVED \_\_\_\_\_ (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
 PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED 56 (gal) (L)

Date	Time	Volume Removed Unit: L	pH	Cond. mS/cm	Temp. °C	ORP	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate 4/m
5/14/07	1122	—	5.90	0.816	28.20	9.1	200	2.14	38.38	1
	1126	4	5.83	0.836	28.38	5.2	150	0.94	37.51	1
	1130	8	5.87	0.843	28.33	-15.5	60	0.71	37.09	1
	1134	12	5.96	0.847	28.34	-21.1	37	0.63	36.70	1
	1138	16	5.96	0.852	28.33	-16.5	24	0.58	36.36	1
	1142	20	5.96	0.853	28.34	-20.0	29	0.55	36.18	1
✓	1146	24	5.97	0.857	28.32	-15	25	0.54	36.20	1

COMMENTS Good Produces.

SIGNATURE My M An





EA Engineering, Science,  
and Technology, Inc.

# Development WELL PURGING AND SAMPLING RECORD

WELL ID MW 9B SAMPLE NO. —

QA/QC SAMPLES COLLECTED/DESIGNATION: \_\_\_\_\_

WELL/SITE DESCRIPTION: \_\_\_\_\_

DATE 5/14/07 TIME 830 AIR TEMP. 85°F

WELL DEPTH (depth to water) 67 ft CASING HEIGHT 2.8 ft  
 WATER DEPTH 216.40 ft (under pressure) WELL DIAMETER 2 in  
 WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
 PUMP INTAKE DEPTH \_\_\_\_\_ ft  
 EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
 PUMP RATE 2 gpm down to 1 LPM (gpm) (LPM)  
 PUMP TIME \_\_\_\_\_ min  
 WELL WENT DRY? ( ) Yes (X) No PUMP TIME 45 min  
 VOL. REMOVED 45 (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
 PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)

Date	Time	Volume Removed Unit: L	pH	Cond. mS/cm	Temp. °C	ORP	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate L/min
5/14/07	924		5.98	0.779	27.96	-63.5	50	0.07	25.30	1
	928	4	5.87	0.783	28.07	-75.3	17	0.08	22.50	1
	932	8	5.87	0.782	27.95	-87.1	19	0.06	22.23	1
	936	12	5.91	0.784	28.05	-91.1	4.9	0.05	22.06	1
	940	16	5.92	0.786	28.01	-92.3	7.4	0.04	22.18	1
✓	944	20	5.93	0.785	27.98	-99.7	6.1	0.04	22.41	1
	948	24	5.94	0.784	27.98	-106.1	11.4	0.04	22.42	1

COMMENTS Good producer.

SIGNATURE by M du



EA Engineering, Science,  
and Technology, Inc.

*Development*  
**WELL PURGING AND SAMPLING RECORD**

WELL ID MW 10A SAMPLE NO. —

QA/QC SAMPLES COLLECTED/DESIGNATION: \_\_\_\_\_

WELL/SITE DESCRIPTION: \_\_\_\_\_

DATE 5/3/07 TIME 800 AIR TEMP. 80°F

WELL DEPTH 40 (bottom) ft CASING HEIGHT 2.3 ft  
WATER DEPTH 23.91 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
PUMP INTAKE DEPTH \_\_\_\_\_ ft  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 2 gpm → 1 Lpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 45 min  
VOL. REMOVED 80 (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)

Date	Time	Volume Removed	pH	Cond.	Temp.	ORP	Turb.	DO	Depth to Water from TOC	Pump Rate
		Unit: gal		ms/cm	°C		NTU	mg/L		gal/min
5/3/07	830		6.95	0.883	25.47	52	750	0.59	25.16	1.5
	840		6.89	0.858	25.47	69	201	0.18		
	850		6.88	0.848	25.45	76	65	0.17		
	900		6.87	0.844	25.46	74	0	0.07		
V										

COMMENTS Good production. No odor.

SIGNATURE [Signature]



## WELL PURGING AND SAMPLING RECORD

WELL ID MW 10B SAMPLE NO.                     

QA/QC SAMPLES COLLECTED/DESIGNATION: \_\_\_\_\_

WELL/SITE DESCRIPTION: \_\_\_\_\_

DATE 5 / 11 / 07 TIME 1000 AIR TEMP. 85° F

WELL DEPTH (51.9 to seal) 52 ft      CASING HEIGHT 2.7 ft  
WATER DEPTH 24.3 ft      WELL DIAMETER 2 in  
WATER COL. HEIGHT ~~31.6~~ ft      SANDPACK DIAM. 8 in  
PUMP INTAKE DEPTH \_\_\_\_\_ ft

EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)

PUMP RATE 1 Gpm  $\rightarrow$  1 Lpm (gpm) (LPM)

PUMP TIME \_\_\_\_\_ min

WELL WENT DRY? ☒ Yes ( ) No PUMP TIME 35 min

VOL. REMOVED 20 gal + 10 gal (gal) (L) RECOVERY TIME \_\_\_\_\_ min

PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)

[illegible]

COMMENTS Water started to clear; then as well went  
dry pump started to pull sediment. Pumped well dry

SIGNATURE My M. R.



# Development

## WELL PURGING AND SAMPLING RECORD

WELL ID MW-11A SAMPLE NO. 1  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 5/17/07 TIME 1600 AIR TEMP. 95°F

WELL DEPTH 30 ft logs CASING HEIGHT \_\_\_\_\_ ft  
WATER DEPTH 7.71 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. \_\_\_\_\_ in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 2.0 gpm - 1.0 Lpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 75 min  
VOL. REMOVED \_\_\_\_\_ (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED ~62 (gal) (L)

[illegible]

COMMENTS Good producer, H<sub>2</sub>O level dropped to top of screen when pumping 20 gpm, but stayed there. No odor detected, reached bottom immediately.

SIGNATURE William D. Hay



## WELL PURGING AND SAMPLING RECORD

DATE 5, 17, 07 TIME            AIR TEMP. 80°F

WELL DEPTH	<u>54.7' (stickup)</u>	ft	CASING HEIGHT	<u>2</u>	ft
WATER DEPTH	<u>≈ 7.05</u>	ft	WELL DIAMETER	<u>2</u>	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	<u>2.0 gpm - 1.04 pm</u>				(gpm) (LPM)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	<u>50</u>	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	<u>≈ 66</u>	(gal) (L)

[illegible]

COMMENTS Great producer; no odor detected. Reached bottom immediately. All good/stable.

SIGNATURE William A. Lang



EA Engineering, Science,  
and Technology, Inc.

*Development*  
**WELL PURGING AND SAMPLING RECORD**

WELL ID MW 124 SAMPLE NO. —

QA/QC SAMPLES COLLECTED/DESIGNATION: \_\_\_\_\_

WELL/SITE DESCRIPTION: \_\_\_\_\_

DATE 5/17/07 TIME 1200 AIR TEMP. 85°F

WELL DEPTH 33.45 (to seal unit)  
34 (bottom) ft CASING HEIGHT \_\_\_\_\_ ft  
WATER DEPTH 5.46 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
PUMP INTAKE DEPTH \_\_\_\_\_ ft  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 1.5 (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes ☒ No PUMP TIME 30 min  
VOL. REMOVED 60 (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes ( ) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)

Date	Time	Volume Removed	pH	Cond. mg/L	Temp. °C	ORP	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate
		42 gpm Unit: gal								
5/7/07	1236	—	5.31	0.818	27.21	6.1	130	0.50	5.46	1.5
	1240	6	5.25	0.846	27.20	-13	55	0.13	5.46	
	1244	12	5.21	0.846	27.18	-26	25	0.07	5.46	
	1248	18	2.20	0.847	27.19	-29	20	0.07	5.46	
V										

COMMENTS Great producer

SIGNATURE \_\_\_\_\_



## WELL PURGING AND SAMPLING RECORD

QA/QC SAMPLES COLLECTED/DESIGNATION:

WELL/SITE DESCRIPTION:

DATE 5/7/07 TIME 1330 AIR TEMP. 88°F

55.4 (to sed.)

WELL DEPTH	56 (bottom)	ft	CASING HEIGHT		ft
WATER DEPTH	5.42	ft	WELL DIAMETER	2	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.	8	in
PUMP INTAKE DEPTH		ft			
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	1.5				(gpm) (LPM)
PUMP TIME					min
WELL WENT DRY?	( ) Yes	<input checked="" type="checkbox"/> No	PUMP TIME	≈ 65	min
VOL. REMOVED	110	(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes	( ) No	TOTAL VOL. REMOVED		(gal) (L)

[illegible]

COMMENTS Good Producer. No defectable odor.

SIGNATURE *[Signature]*



## WELL PURGING AND SAMPLING RECORD

WELL ID mw 13A SAMPLE NO. 1

OA/QC SAMPLES COLLECTED/DESIGNATION: \_\_\_\_\_

WELL/SITE DESCRIPTION:

DATE 5/11/07 TIME 745 AIR TEMP. 85°F

WELL DEPTH (37.7 ft to base) 40 ft CASING HEIGHT flush ft  
WATER DEPTH 5.20 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
PUMP INTAKE DEPTH \_\_\_\_\_ ft  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 2 gpm down to 1 LPM (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 250 min  
VOL. REMOVED 50 gal (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)





## WELL PURGING AND SAMPLING RECORD

QA/QC SAMPLES COLLECTED/DESIGNATION:\_\_\_\_\_

WELL/SITE DESCRIPTION:

DATE 5/10/07 TIME 1500 AIR TEMP. 88°F

WELL DEPTH 260 ft (+ to salinity) CASING HEIGHT flush mount ft  
WATER DEPTH 50.43 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
PUMP INTAKE DEPTH \_\_\_\_\_ ft  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 25 gpm down to 1 LPM (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 55 min  
VOL. REMOVED 50 (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED \_\_\_\_\_ (gal) (L)

Date	Time	Volume Removed	pH	Cond.	Temp.	ORP	Turb.	DO	Depth to Water from TOC	Pump Rate
		Unit: L		mg/L	°C		NTU	mg/L		L/m
5/10/07	1546	-	5.37	1.035	28.28	-28.5	85	0.08	5.48	1
	1550	4	5.30	1.035	28.33	-39.2	75	0.05		1
	1554	8	5.30	1.038	28.49	-47.2	110	0.04		1
	1558	12	5.32	1.043	28.64	-50.0	120	0.04		1
	1602	16	5.31	1.041	28.58	-55.9	120	0.03		1
	1606	20	5.33	1.039	28.35	-59.5	100	0.02		1
✓	1610	24	5.38	1.049	28.92	-54.0	90	0.03		
	1614	28	5.35	1.040	28.35	-55.6	70	0.02		
	1618	32	5.33	1.037	28.27	-56.6	45	0.02		
	1622	36	5.33	1.037	28.29	-54.8	40	0.01		
	1626	40	5.33	1.038	28.28	-54.4	30	0.01	5.48	

COMMENTS Good producer.

SIGNATURE *W. M. Sullivan*



15 Loveton Circle  
Sparks, Maryland 21152

# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-14A  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 18, 07

TIME 1200

**AIR TEMP.** \_\_\_\_\_

WELL DEPTH	44 bgs	ft	CASING HEIGHT	3	ft
WATER DEPTH	5.02	ft	WELL DIAMETER		in
WATER COL HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	2 gpm - 1.6 gpm				(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	55	min
VOL REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	35	(gal) (L)

[illegible]

## COMMENTS

No odor, Cleared fairly quickly. Great product

**SIGNATURE**

Will Haver



# Development

## PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-14B SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 18, 07 TIME 1530 AIR TEMP. 85°F

WELL DEPTH <u>62</u> <u>hgs</u>	ft	CASING HEIGHT <u>3</u>	ft
WATER DEPTH <u>Artesian</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL. HEIGHT _____	ft	SANDPACK DIAM. _____	in
EQUIVALENT VOLUME OF STANDING WATER _____			(gal) (L)
PUMP RATE <u>2</u> <u>gpm</u> $\rightarrow$ <u>1</u> <u>lpm</u>			(gpm) (lpm)
PUMP TIME _____			min
WELL WENT DRY? ( ) Yes (X) No		PUMP TIME <u>50</u>	min
VOL REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? ( ) Yes (X) No		TOTAL VOL. REMOVED <u>= 56</u> (gal) (L)	

[illegible]

### COMMENTS

No odor. Well is artesian (slow flowing over PVC.)

SIGNATURE

W. H. H. H.



# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-15 SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 10, 07 TIME 0700 AIR TEMP. 80°F

WELL DEPTH	40 bgs	ft	CASING HEIGHT	≈ 2.5	ft
WATER DEPTH	15.35	ft	WELL DIAMETER	2	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE			2 cpm → 1 Lpm		(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	45	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	40	(gal) (L)

### COMMENTS

Great producer. Little/no odor.

**SIGNATURE**

Willie H. H. H.



15 Loveton Circle  
Sparks, Maryland 21152

# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-16 A  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 11, 07

TIME 1100

AIR TEMP. \_\_\_\_\_

WELL DEPTH	45 bgs	ft	CASING HEIGHT	3	ft
WATER DEPTH	14.90	ft	WELL DIAMETER	2	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	2 gpm - 1 Lpm				(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	45	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	40	(gal) (L)

[illegible]

### COMMENTS

Little/No odor      Ranged  $\approx$  40 gallons

**SIGNATURE**

Will O'Leary



15 Loveton Circle  
Sparks, Maryland 21152

Development  
PURGING LOGBOOK FORM  
GROUNDWATER SAMPLES

WELL ID MW-16B  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 11, 07

TIME 1000

AIR TEMP. \_\_\_\_\_

WELL DEPTH 62 bgs ft

CASING HEIGHT 3 ft

WELL DEPTH \_\_\_\_\_  
WATER DEPTH 16.01 ft

WELL DIAMETER 2 in

WATER COL. HEIGHT \_\_\_\_\_ ft

SANDPACK DIAM. \_\_\_\_\_ in

EQUIVALENT VOLUME OF STANDING WATER

7 gpm - 1 Lpm (gpm) (lpm)

PUMP RATE \_\_\_\_\_

2 Apr - 1 Apr min

PUMP TIME \_\_\_\_\_

PUMP TIME 55 min

WELL WENT DRY? ( ) Yes (X) No (03111)

RECOVERY TIME \_\_\_\_\_ min

VOL. REMOVED \_\_\_\_\_ (gal) (L)  
PURGE AGAIN? ( ) Yes (X) No

TOTAL VOL. REMOVED 248 (gal) (L)

[illegible]

## COMMENTS

Good produce / No odor

**SIGNATURE**

with life



# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-17A  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12.11.07

TIME 0800

**AIR TEMP.** \_\_\_\_\_

WELL DEPTH 46 hgs ft  
WATER DEPTH 1.70 ft  
WATER COL HEIGHT \_\_\_\_\_ ft  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_  
PUMP RATE \_\_\_\_\_  
PUMP TIME \_\_\_\_\_  
WELL WENT DRY? ( ) Yes (X) No  
VOL REMOVED \_\_\_\_\_ (gal) (L)  
PURGE AGAIN? ( ) Yes (X) No

CASING HEIGHT	flush	ft
WELL DIAMETER	2	in
SANDPACK DIAM.		in
		(gal) (l)
pm - 12 pm		(gpm) (lpm)
		min
PUMP TIME	45	min
RECOVERY TIME		min
TOTAL VOL. REMOVED	40	(gal) (l)

[illegible]

### COMMENTS

Good producer little/no odor

**SIGNATURE**

Walter H. Lee



## Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-18A SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 19, 07 TIME 1600 AIR TEMP. \_\_\_\_\_

WELL DEPTH	45 bgs	ft	CASING HEIGHT	Flush	ft
WATER DEPTH	12.98	ft	WELL DIAMETER	2	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE	2 bpm - 1 bpm				(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	40	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	~37	(gal) (L)

[illegible]

### COMMENTS

No odor, cleared quickly

**SIGNATURE**

W. R. Day





# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-18B SAMPLE NO.             
WELL/SITE DESCRIPTION                                 

DATE 12, 19, 07 TIME 1500 AIR TEMP. \_\_\_\_\_

WELL DEPTH	62 bays	ft	CASING HEIGHT	flush	ft
WATER DEPTH	4.06	ft	WELL DIAMETER	2	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE					(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes ( ) No		PUMP TIME	25	min
VOL. REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	15	(gal) (L)

[illegible]

COMMENTS No odor

SIGNATURE William L. Lee



# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-19A  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO.                     

DATE 12/10/07 TIME 1445 AIR TEMP. \_\_\_\_\_

WELL DEPTH _____	36 hrs	ft	CASING HEIGHT _____	3	ft
WATER DEPTH _____	5.40	ft	WELL DIAMETER _____	2	in
WATER COL. HEIGHT _____		ft	SANDPACK DIAM. _____		in
EQUIVALENT VOLUME OF STANDING WATER _____					(gal) (L)
PUMP RATE _____	2 gpm - 1 Lpm				(gpm) (lpm)
PUMP TIME _____					min
WELL WENT DRY? ( ) Yes (X) No			PUMP TIME _____	40	min
VOL. REMOVED _____ (gal) (L)			RECOVERY TIME _____		min
PURGE AGAIN? ( ) Yes (X) No			TOTAL VOL. REMOVED _____	35	(gal) (L)

[illegible]

COMMENTS Little/No odor

**SIGNATURE**

With Love



15 Loveton Circle  
Sparks, Maryland 21152

# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-19B  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 10, 07

TIME 1400

AIR TEMP. \_\_\_\_\_

WELL DEPTH 57 logs ft CASING HEIGHT 2.5 ft  
WATER DEPTH 6.01 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 2 gpm - 66 gpm (gpm) (lpm)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes (X) No PUMP TIME 40 min  
VOL REMOVED \_\_\_\_\_ (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes (X) No TOTAL VOL REMOVED 45 (gal) (L)

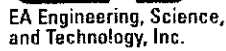
[illegible]

## COMMENTS

Great producer. Pulled 40 gallons prior to 4 SE  
Readings

**SIGNATURE**

William L. Hay



## WELL PURGING AND SAMPLING RECORD

WELL ID mw 20 SAMPLE NO. 1  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 4/25/08 TIME 1230 AIR TEMP. 85°F +

WELL DEPTH 52.8 ft CASING HEIGHT 2.50 ft  
WATER DEPTH 15.48 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT \_\_\_\_\_ ft SANDPACK DIAM. 8 in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE 26 gpm → 42 gpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes ( ) No PUMP TIME 40 min  
VOL. REMOVED 45520 (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes ( ) No TOTAL VOL. REMOVED 65 (gal) (L)

[illegible]

COMMENTS Dunny well installed then ~30 gal. city water was added to well. Good producer!

SIGNATURE by mron



EA Engineering, Science,  
and Technology, Inc.

# Development

## WELL PURGING AND SAMPLING RECORD

WELL ID MW-21 SAMPLE NO. —

WELL/SITE DESCRIPTION —

DATE 4/25/08 TIME 1400 AIR TEMP. 86°F

WELL DEPTH 42.50 ft CASING HEIGHT 2.5 ft  
 WATER DEPTH 1.33 ft WELL DIAMETER 2 in  
 WATER COL. HEIGHT — ft SANDPACK DIAM. 8 in  
 EQUIVALENT VOLUME OF STANDING WATER — (gal) (L)  
 PUMP RATE 2.6 gpm → 1 Lpm (gpm) (LPM)  
 PUMP TIME — min  
 WELL WENT DRY? ☒ Yes ( ) No PUMP TIME 45 min  
 VOL. REMOVED 35 + 10 (gal) (L) RECOVERY TIME — min  
 PURGE AGAIN? ☒ Yes ( ) No TOTAL VOL. REMOVED 45 (gal) (L)

Date	Time	Volume Removed Unit: <u>L</u>	pH	Cond. <u>µS/cm</u>	Temp. <u>°C</u>	ORP	Turb. <u>NTU</u>	DO <u>mg/L</u>	Depth to Water from TOC	Pump Rate <u>4m</u>
4/25	1418	—	7.06	0.869	27.28	116	71000	5.27	40.0	2
	1422	8	6.96	0.832	27.31	131	71000	3.74		2
	1426	16	stopped pump / dry well →							
	1430	16	started pump →							
	1434	20	7.02	0.873	27.48	146.1	71000	5.04	40.0	1
	1438	24	6.98	0.877	27.45	155.3	438.2	5.39	40.0	1
	1442	28	7.00	0.880	27.43	157.6	211.9	5.53	40.0	1
	1446	32	6.98	0.885	27.21	165.3	49.9	5.77	40.0	1
	1450	36	6.96	0.886	27.18	31.2	169.7	5.79	40.0	1
	1454	40	6.93	0.890	27.24	140.8	23.7	5.81	40.0	1

COMMENTS During installation of well ~30 gal of  
city water was added. Slow producer.

SIGNATURE [Signature]



EA Engineering, Science,  
and Technology, Inc.

# Development

## WELL PURGING AND SAMPLING RECORD

WELL ID MW-22 SAMPLE NO. —

WELL/SITE DESCRIPTION —

DATE 4/25/08 TIME 845 AIR TEMP. 80°F +

WELL DEPTH 4830 ft CASING HEIGHT 2.50 ft  
 WATER DEPTH 7.60 ft WELL DIAMETER 2 in  
 WATER COL. HEIGHT — ft SANDPACK DIAM. 8 in  
 EQUIVALENT VOLUME OF STANDING WATER — (gal) (L)  
 PUMP RATE 1 lpm → 1.6 lpm (gpm) (LPM)  
 PUMP TIME — min  
 WELL WENT DRY? ( ) Yes (X) No PUMP TIME 75 min  
 VOL. REMOVED 35 + 15 (gal) (L) RECOVERY TIME — min  
 PURGE AGAIN? ( ) Yes (X) No TOTAL VOL. REMOVED 50 (gal) (L)

Date	Time	Volume Removed Unit: L	pH	Cond. mg/cm	Temp. °C	ORP	Turb. NTU	DO mg/L	Depth to Water from TOC	Pump Rate l/min
4/25	9:00	—	7.31	0.836	29.79	92.2	1500	8.03	43.62	1
	9:05	5	7.28	0.840	29.90	123.9	1500	7.43	745.0	1
	9:10	10	7.27	0.832	30.40	126.6	1115	6.83	745.0	1
	9:15	15	7.27	0.740	30.87	135.7	404.5	6.41	745.0	1
	9:20	20	7.22	0.806	30.87	146.5	435.7	5.87	745.0	1
↓	9:25	25	7.12	0.803	30.87	154.5	403.9	5.69	745.0	1
	9:30	30	7.11	0.802	30.90	158.8	354	5.47	745.0	1
	9:35	35	7.07	0.803	30.89	164.2	295.1	5.16	745.0	1
	9:40	40	7.06	0.801	30.86	170.0	210.9	5.30	745.0	1
	9:45	45	7.03	0.788	30.70	177.6	178.4	5.45	745.0	1
	9:50	50	7.00	0.778	30.76	185.9	91.0	6.03	745.0	1
	9:55	55	7.01	0.778	30.77	187.0	74.3	6.01	745.0	1
	10:00	60	7.07	0.779	30.76	196.0	49.1	5.99	745.0	1

COMMENTS Well almost dried up during initial purge.  
~30 gallons of water was added to well during  
installation.

SIGNATURE [Signature]





# Development

WELL ID MW 24 SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 4/25/08 TIME 1045 AIR TEMP. 85°F +

WELL DEPTH 30.90 ft CASING HEIGHT Plush ft  
WATER DEPTH 4.55 ft WELL DIAMETER 2 in  
WATER COL. HEIGHT 2 ft SANDPACK DIAM. 8 in  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_ (gal) (L)  
PUMP RATE ~ 2.6 gpm → 1.4 gpm (gpm) (LPM)  
PUMP TIME \_\_\_\_\_ min  
WELL WENT DRY? ( ) Yes ( ) No PUMP TIME 40 min  
VOL. REMOVED 90 gal + 8 (gal) (L) RECOVERY TIME \_\_\_\_\_ min  
PURGE AGAIN? ( ) Yes ( ) No TOTAL VOL. REMOVED 48 (gal) (L)

[illegible]

COMMENTS Added ~5 gal of city water during well installation.

SIGNATURE

by M. R.





6 15 Loveton Circle  
Sparks, Maryland 21152

Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-25 SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 9, 25, 08 TIME 0830 AIR TEMP. \_\_\_\_\_

WELL DEPTH <u>235</u> <u>bgs</u>	ft	CASING HEIGHT <u>3</u>	ft
WATER DEPTH <u>14.62</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL. HEIGHT _____	ft	SANDPACK DIAM. _____	in
EQUIVALENT VOLUME OF STANDING WATER _____	(gal) (L)		
PUMP RATE <u>26pm - 11pm</u>	(gpm) (ipm)		
PUMP TIME _____	min		
WELL WENT DRY? ( ) Yes (X) No		PUMP TIME <u>30</u>	min
VOL. REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? ( ) Yes (X) No		TOTAL VOL. REMOVED <u>245</u> (gal) (L)	

[illegible]

COMMENTS No odor, great producer.

**SIGNATURE**

William Dean



Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID MW-26  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 19 Sep 08

TIME 0900

AIR TEMP. \_\_\_\_\_

WELL DEPTH <u>40</u>	ft	CASING HEIGHT <u>25.3</u>	ft
WATER DEPTH <u>14.48</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL HEIGHT _____	ft	SANDPACK DIAM. _____	in
EQUIVALENT VOLUME OF STANDING WATER _____	(gal) (L)		
PUMP RATE <u>2 Gpm - 1 Lpm</u>	(gpm) (lpm)		
PUMP TIME _____	min		
WELL WENT DRY? ( ) Yes (X) No		PUMP TIME <u>48</u>	min
VOL REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? ( ) Yes (X) No		TOTAL VOL REMOVED <u>356</u> (gal) (L)	

[illegible]

### COMMENTS

<sup>s</sup> ~ 5 gal used during installation. No odor, did not clear quickly.

**SIGNATURE**

Wickard Jones



15 Loveton Circle  
Sparks, Maryland 21152

# Development

## PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID OP-1  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 18, 08

TIME 1300

AIR TEMP. 82

WELL DEPTH 65 ft  
WATER DEPTH 12.07 ft  
WATER COL HEIGHT \_\_\_\_\_ ft  
EQUIVALENT VOLUME OF STANDING WATER \_\_\_\_\_

CASING HEIGHT \_\_\_\_\_ ft  
WELL DIAMETER \_\_\_\_\_ in  
SANDPACK DIAM. \_\_\_\_\_ in  
\_\_\_\_\_ (gal) (L)  
\_\_\_\_\_ (gpm) (lpm)

PUMP RATE \_\_\_\_\_  
PUMP TIME \_\_\_\_\_  
WELL WENT DRY? ( ) Yes (X) No  
VOL REMOVED \_\_\_\_\_ (gal) (L)  
PURGE AGAIN? ( ) Yes (X) No

PUMP TIME 40 min  
RECOVERY TIME \_\_\_\_\_ min  
TOTAL VOL. REMOVED 100 (gal) (L)

[illegible]

## COMMENTS

Mostly cleared. No odor

**SIGNATURE**

Walter H. H. H.



# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID OP-2 SAMPLE NO. \_\_\_\_\_  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 20, 68 TIME 0900 AIR TEMP. 85°F

WELL DEPTH	<u>73 bgs</u>	ft	CASING HEIGHT	<u>3</u>	ft
WATER DEPTH	<u>3.09</u>	ft	WELL DIAMETER	<u>2</u>	in
WATER COL. HEIGHT		ft	SANDPACK DIAM.		in
EQUIVALENT VOLUME OF STANDING WATER					(gal) (L)
PUMP RATE			<u>2 gpm - 11 gpm</u>		(gpm) (lpm)
PUMP TIME					min
WELL WENT DRY?	( ) Yes (X) No		PUMP TIME	<u>45</u>	min
VOL REMOVED		(gal) (L)	RECOVERY TIME		min
PURGE AGAIN?	( ) Yes (X) No		TOTAL VOL. REMOVED	<u>2150</u>	(gal) (L)

### COMMENTS

Very good producer. Organic odor. Cleared/not completely.

**SIGNATURE**

William Allen



## Development

## PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID DP-3 SAMPLE NO. —  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 18, 08 TIME 1445 AIR TEMP. 90

WELL DEPTH <u>84</u>	ft	CASING HEIGHT <u>3</u>	ft
WATER DEPTH <u>9.30</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL. HEIGHT _____	ft	SANDPACK DIAM. _____	in
EQUIVALENT VOLUME OF STANDING WATER _____	(gal) (L)		
PUMP RATE <u>2 Gpm - 11 Gpm</u>	(gpm) (ipm)		
PUMP TIME _____	min		
WELL WENT DRY? ( ) Yes (X) No		PUMP TIME <u>53</u>	min
VOL REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? ( ) Yes (X) No		TOTAL VOL REMOVED <u>≈ 84</u> (gal) (L)	

[illegible]

COMMENTS Purged 84 gal. No odor.

SIGNATURE William J. Jones



15 Loveton Circle  
Sparks, Maryland 21152

# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID OP-4  
WELL/SITE DESCRIPTION \_\_\_\_\_

SAMPLE NO. \_\_\_\_\_

DATE 12, 16, 08

TIME 1540

AIR TEMP. 80°F

WELL DEPTH 80 ft  
WATER DEPTH 5.49 ft  
WATER COL. HEIGHT \_\_\_\_\_ ft

CASING HEIGHT 3 ft  
WELL DIAMETER 2 in  
SANDPACK DIAM. \_\_\_\_\_ in

EQUIVALENT VOLUME OF STANDING WATER  
PUMP RATE

2 Gpm  $\rightarrow$  1 Lpm

PUMP RATE \_\_\_\_\_  
PUMP TIME \_\_\_\_\_

PUMP TIME 50 min

WELL WENT DRY? ( ) Yes (✓) No  
VOL REMOVED \_\_\_\_\_ (gal) (L)

RECOVERY TIME \_\_\_\_\_ min

**PURGE AGAIN?** ☐ Yes ☒ No

TOTAL VOL REMOVED 286 (gal) (L)

[illegible]

## COMMENTS

No odor. ~~clear~~ cleared substantially

**SIGNATURE**

Wilbur D. Case



# Development

# PURGING LOGBOOK FORM GROUNDWATER SAMPLES

WELL ID DP-5 SAMPLE NO. —  
WELL/SITE DESCRIPTION \_\_\_\_\_

DATE 12, 16, 08 TIME 1400 AIR TEMP. 90°F

WELL DEPTH <u>70</u>	ft	CASING HEIGHT <u>3</u>	ft
WATER DEPTH <u>5.65</u>	ft	WELL DIAMETER <u>2</u>	in
WATER COL. HEIGHT _____	ft	SANDPACK DIAM. _____	in
EQUIVALENT VOLUME OF STANDING WATER _____	(gal) (L)		
PUMP RATE <u>26 gpm = 14 gpm</u>	(gpm) (lpm)		
PUMP TIME _____	min		
WELL WENT DRY? ( ) Yes (X) No		PUMP TIME <u>40</u>	min
VOL. REMOVED _____ (gal) (L)		RECOVERY TIME _____	min
PURGE AGAIN? ( ) Yes (X) No		TOTAL VOL. REMOVED <u>≈ 200</u> (gal) (L)	

[illegible]

## COMMENTS

Goat produces. Not much silt, some. Did not clear completely

**SIGNATURE**

William R. Allen